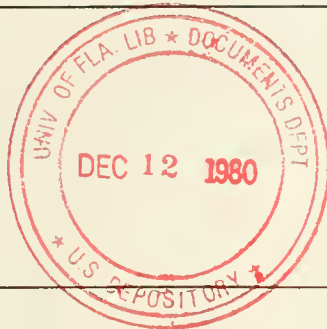




U.S. Department of Commerce
BUREAU OF THE CENSUS
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Copper Controlled Materials

SUMMARY FOR 1979

ITA-9008(79)-5
Issued October 1980

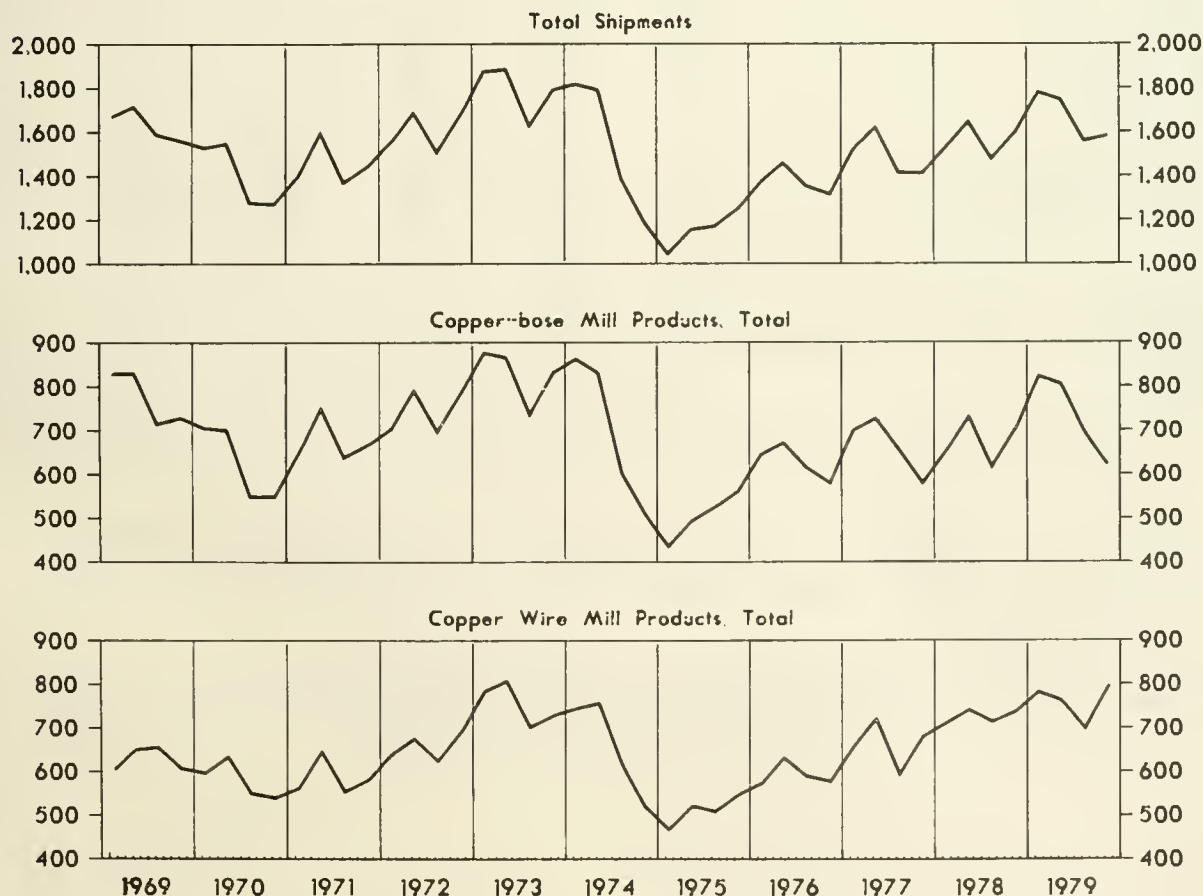
SUMMARY OF FINDINGS

Total shipments of copper-base mill and foundry products totaled 6.7 billion pounds in 1979, a 6 percent increase compared to 6.3 billion pounds in 1978. Copper wire mill ship-

ments, at 3.0 billion pounds, were up 5 percent from 1978. Within this group, bare wire was unchanged; insulated communication wire increased 5 percent; and other insulated wire increased 5 percent.

THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

SHIPMENTS OF COPPER CONTROLLED MATERIALS FROM BRASS MILLS, COPPER WIRE MILLS, FOUNDRIES AND POWDER MILLS 1969 TO 1979 (In Thousands of Pounds)



Address inquiries concerning these figures to the U.S. Department of Commerce, Bureau of Industrial Economics, Washington, D.C. 20230, or to the Bureau of the Census, Industry Division, Washington, D.C. 20233, or call James Oliver, (301) 763-5440.

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Table 1. SHIPMENTS OF COPPER-BASE MILL AND FOUNDRY PRODUCTS: 1979 AND 1978

(Millions of pounds--metal weight)

Type of product	Total	First quarter	Second quarter	Third quarter	Fourth quarter
1979					
Total.....	6,683	1,784	1,749	1,564	r1,586
Brass mill products ¹	2,952	825	806	699	622
Copper-base alloy:					
Sheet and strip ²	849	240	232	193	184
Rod, bar, and wire.....	870	254	237	203	176
Tube and pipe.....	157	44	42	37	34
Unalloyed copper:					
Sheet and strip.....	212	65	69	53	25
Rod, bar, and wire ³	104	28	27	25	24
Tube and pipe.....	760	194	199	188	179
Copper wire mill products ^{1 4}	3,048	784	764	r702	r798
Bare wire ⁵	236	62	67	48	r59
Insulated communication wire.....	846	208	229	r216	r193
Other insulated wire.....	1,966	514	468	r438	r546
Brass and bronze foundry products ^{6 7}	617	155	162	148	152
Copper-base powder mill products ¹	66	20	17	15	14
Copper-base alloy:					
Granular.....	15	4	4	3	4
Flake.....	3	1	1	1	(Z)
Unalloyed copper:					
Granular.....	47	14	12	11	10
Flake.....	1	(Z)	(Z)	(Z)	(Z)
1978					
Total.....	6,266	1,531	1,651	1,483	1,601
Brass mill products ¹	2,712	653	734	620	705
Copper-base alloy:					
Sheet and strip ²	758	171	211	170	206
Rod, bar, and wire.....	847	224	222	191	210
Tube and pipe.....	145	34	39	34	38
Unalloyed copper:					
Sheet and strip.....	214	48	59	45	62
Rod, bar, and wire ³	90	23	24	19	24
Tube and pipe.....	658	153	179	161	165
Copper wire mill products ^{1 4}	2,911	713	743	716	739
Bare wire ⁵	238	58	65	53	62
Insulated communication wire.....	806	192	210	208	196
Other insulated wire.....	1,867	463	468	455	481
Brass and bronze foundry products ^{6 7}	580	149	157	132	142
Copper-base powder mill products ¹	63	16	17	15	15
Copper-base alloy:					
Granular.....	17	5	4	4	4
Flake.....	2	(Z)	1	1	(Z)
Unalloyed copper:					
Granular.....	44	11	12	10	11
Flake.....	(Z)	(Z)	(Z)	(Z)	(Z)

Note: Detail may not add to totals due to independent rounding. Monthly shipments data for brass mills and for copper wire mills of primary companies are available in Current Industrial Reports Series M33K, Inventories of Brass and Copper Wire Mill Shapes.

¹Revised by 5 percent or more from previously published figures. (Z) Less than 500,000 pounds.

²Shipments by brass mills, copper wire mills and copper-base powder mills include all controlled materials orders shipped by the respondent for his own account; by other copper controlled material producers for the respondent's account; or by the responding company under toll arrangements for the account of controlled materials consumers.

³Military ammunition cups and discs are included on a net-weight basis, i.e., excluding the weight of the webbing scrap generated in the cupping and discing operation.

⁴Does not include electrical wire.

⁵Reported in copper content weight rather than metal weight.

⁶Wire, uninsulated, bare, tinned, and/or alloy coated.

⁷Shipments by brass and bronze foundries include both shipments for sale (to the trade) and shipments for own use. Shipment for own use represent copper and copper-base alloy castings for use by the reporting company or an affiliate, subsidiary, or parent company. Also includes castings produced and consumed at the same location in the production of finished products.

⁸Source: Bureau of the Census, Current Industrial Reports Series M33E, Nonferrous Castings.

Table 2. COPPER-BASE MILL AND FOUNDRY PRODUCTS, SHIPMENTS, EXPORTS, IMPORTS, AND APPARENT CONSUMPTION: 1979 AND 1978

(Quantity in millions of pounds; value in \$1,000)

Product ¹	Manufac- turers' shipments	Exports of domestic merchandise ^{1 2}			Percent, exports to manufac- turers' shipments (quantity)	Imports for consumption ^{1 4}		Calculated import duty	Apparent consumption ⁵	Percent, imports to apparent consump- tion (quantity)
		Quantity	Value at port	Estimated producers' value ³		Quantity	Value			
1979										
Total ⁶	3,254	147	219,579	208,436	5	333	374,244	6,636	3,440	10
Brass mill products:										
Copper-base alloy:										
Sheet and strip.....	849	10	39,210	37,359	1	145	138,024	2,360	1,839	8
Rod, bar, and wire.....	870	15	19,830	18,894	2					
Tube and pipe.....	157	33	47,868	45,609	21					
Unalloyed copper:										
Sheet and strip.....	212	1	2,342	2,231	(2)	62	68,062	893	334	19
Rod, bar, and wire.....	104	43	40,462	38,552	41					
Tube and pipe.....	760	19	25,480	24,277	2					
Copper wire mill products, bare wire.....	236	22	37,955	36,164	9	25	28,713	1,147	239	10
Copper-base powder mill products:										
Copper-base alloy:										
Granular.....	15	4	6,432	5,350	6	2	4,832	189	64	3
Flake.....	3									
Unalloyed copper:										
Granular.....	47									
Flake.....	1									
1978										
Total ⁶	3,013	90	121,121	114,847	3	381	344,234	7,236	3,304	12
Brass mill products:										
Copper-base alloy:										
Sheet and strip.....	758	9	24,942	23,765	1	178	138,612	2,932	1,755	10
Rod, bar, and wire.....	847	19	18,706	17,823	2					
Tube and pipe.....	145	13	21,743	20,717	9					
Unalloyed copper:										
Sheet and strip.....	214	2	2,320	2,210	1	60	56,998	894	343	17
Rod, bar, and wire.....	90	19	14,653	13,961	21					
Tube and pipe.....	658	6	7,028	6,696	1					
Copper wire mill products, bare wire.....	238	18	27,134	25,853	8	25	22,107	914	245	10
Copper-base powder mill products:										
Copper-base alloy:										
Granular.....	17	4	4,595	3,822	6	3	4,300	197	62	5
Flake.....	2									
Unalloyed copper:										
Granular.....	44									
Flake.....	(2)									

¹Revised by 5 percent or more from previously published figures. (2) Less than half the stated unit of measure.²Comparison of domestic manufacturers' shipment, export, and import codes for copper-base mill and foundry products is shown in table 3.³Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.⁴These values were derived by use of adjustment factors to exclude freight, insurance, and other charges incurred in moving goods to the port of export. This adjustment is made to convert the values to an approximation of the producers' value of exported goods. Current adjustment factors (.9528 for industry group 335 relating to brass mill and copper wire mill products and .8318 for industry group 339 relating to copper-base powder mill products) are based on data for 1976 which are published in "Origin of Exports of Manufacturing Establishments," M76(AS)-8, appendix A.⁵Source: Bureau of the Census Report IM145-X, U.S. Imports for Consumption and General Imports.⁶Apparent consumption is derived by subtracting exports from the total of net shipments plus imports.⁷This total does not include either insulated wire and cable or brass and bronze foundry products.

Table 3. COMPARISON OF DOMESTIC MANUFACTURERS' SHIPMENTS, EXPORT, AND IMPORT CODES FOR COPPER-BASE MILL PRODUCTS: 1979

Manufacturers' product description (import/export descriptions)	Exports of domestic merchandise (Schedule B) ¹	Imports for consumption (TSUSA) ²
Copper mill products:		
Copper-base alloy:		
Sheet, strip, and plate (flat).....	612,3360,612.3370,612.3380	612.3400,612.3500,612.3600,612.3800,612.3920,612.3940,
Rod, bar, and wire ³ (non-flat).....	612.4620	612.3960,612.3980,612.4000,612.4100,612.4300,612.4410,
		612.4430,612.4510,612.4520,612.5200,612.6100,612.6200,
		612.6300,612.6410,612.6420,612.8100,612.8200
Tube and pipe.....	613.0520,613.0530	613.0600,613.0800,613.1000,613.1100,613.1200
Unalloyed copper:		
Sheet, strip, and plate (flat).....	612.3320	612.3000,612.3120,612.3140,612.3160,612.3200
Rod, bar, and wire ³ (non-flat).....	612.4640	612.5000,612.6000,612.8000
Tube and pipe.....	613.0540,613.0550	613.0200,613.0300,613.0400
Copper wire mill products, bare wire.....	612.7420,612.7440	612.7000,612.7100,612.7220,612.7240,612.7260,612.7300
Copper-base powder mill products:		
Copper-base alloy:		
Granular.....	612.5400	612.5500,612.5600
Flake.....		
Unalloyed copper:		
Granular.....		
Flake.....		

¹Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.²Source: Bureau of the Census Report IM145-X, U.S. Imports for Consumption and General Imports.³The import and export codes for this line do not include wire.

DESCRIPTION OF SURVEY

Scope of Survey—This survey includes firms engaged in manufacturing copper-base mill products.

Sampling Description—The statistics in this publication were collected on Bureau of Industrial Economics, Copper Controlled Materials Forms ITA 9008, *Brass Mills, Copper Wire Mills, Foundries, and Powder Mills*. The mailing panel for these surveys includes all known producers of brass mill products and copper-base powder, as well as, those manufacturers who produce 95 percent of wire mill products. The data for wire mill products are inflated to represent 100 percent coverage.

Survey Error—The annual figures include estimates for respondents whose reports were not received in time for tabulation, as well as those establishments not included in the mailing panel. Such missing figures are "imputed" from prior reports and/or estimates and are generally limited to a maximum of 10 percent for any one item. Individual items with higher than 10 percent imputation rate are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures. The probable range of difference between the actual and imputed figures is unknown. The degree of uncertainty regarding the accuracy of the data, however, increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

Revision to Previously Published Data—This annual report summarizes quarterly figures and incorporates all revisions in the series for both the current and the previous year, thus providing a single reference copy to replace the quarterly publications.

Seasonal Adjustment—The data are not adjusted for seasonal variation.

EXPLANATION OF TERMS

Shipments—Shipments by brass and bronze foundries include both shipments for sale (to the trade) and shipments for own use. Shipments for own use represent copper and copper-base alloy castings for use by the reporting company or an affiliate, subsidiary, or parent company, and also include castings produced and consumed at the same location in the production of finished products.

Shipments by brass mills, copper wire mills and copper-base powder mills include all controlled materials orders shipped: by the respondent for his own account, by other copper-controlled material producers for the respondent's account, or by the responding company under toll arrangements for the account of controlled materials consumers.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of

data for many commodity areas. The domestic output classification is based on type of industry; whereas, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no comparable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to those mentioned above, there are also the following problems affecting the comparability of the three sets of data:

a. **Valuation**—There are different methods of valuation for the three types of data.

Domestic Output—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

Exports—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Estimated producers' values of exports have also been developed. These values more closely approximate the values reported for domestic output because they exclude freight, insurance, and other charges applied from the producing plant to the export point.

Imports—Valued at the first port of entry in the United States. It includes c.i.f. (cost, insurance, and freight), duty, and other charges to the import point.

b. **Duplication in Quantity and Value of Output**—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

c. **Low-Valued Export and Import Transactions**—Commodity information is not shown for individual imports valued under \$251. For exports, commodity information is not reported for shipments individually valued under \$501, effective March 1979 and for shipments valued under \$251 prior to March 1979. This is believed to have only negligible effect on the statistics for most commodities.

d. **Manufacturers' Shipments, Not Specified by Kind**—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

e. **Time Lag Between Output and Exports**—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially

when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

f. *"Direct" vs "Total" Commodity Exports and Imports*—Export and import data do not include materials which are incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

g. *Used Commodities*—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

h. *Geographic Area of Coverage*—Import and export data reflect the movement of merchandise into and out of the U.S. customs territory (the 50 States, the District of Columbia, and Puerto Rico). They do not include movements between the United States and its possessions. Domestic output (shipments) data exclude Puerto Rico and other outlying areas.

RELATED REPORTS

The Bureau of the Census also publishes reports on other related products as follows:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M33E	Monthly	Nonferrous Castings
M33K	Monthly	Inventories of Brass and Copper Wire Mill Shapes
MA-33L	Annually	Insulated Wire and Cable
M3-1	Monthly	Manufacturers' Shipments, Inventories, and Orders

Series	Frequency	Title
<i>Foreign Trade Reports</i>		
FT-410	Monthly	U.S. Exports—Schedule B—Commodity by Country
IM145-X	Monthly	U.S. Imports for Consumption and General Imports

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
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Bureau of Industrial Economics	Robert C. Reiley	(202) 566-7732
Foreign Trade publications	Juanita Noone	(301) 763-5140
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ACKNOWLEDGMENTS

This report was prepared in the Industry Division, Bureau of the Census, under the direction of Paul F. Berard, Chief, Current Durables Branch, and Doris B. Pope, Chief, Metals Section. James Oliver was directly responsible for the review of the data and preparation of the report. Roger H. Bugenhagen, Chief of the Division, and John R. Wikoff, Assistant Chief for Commodity and Special Programs, provided overall direction and coordination to this project.

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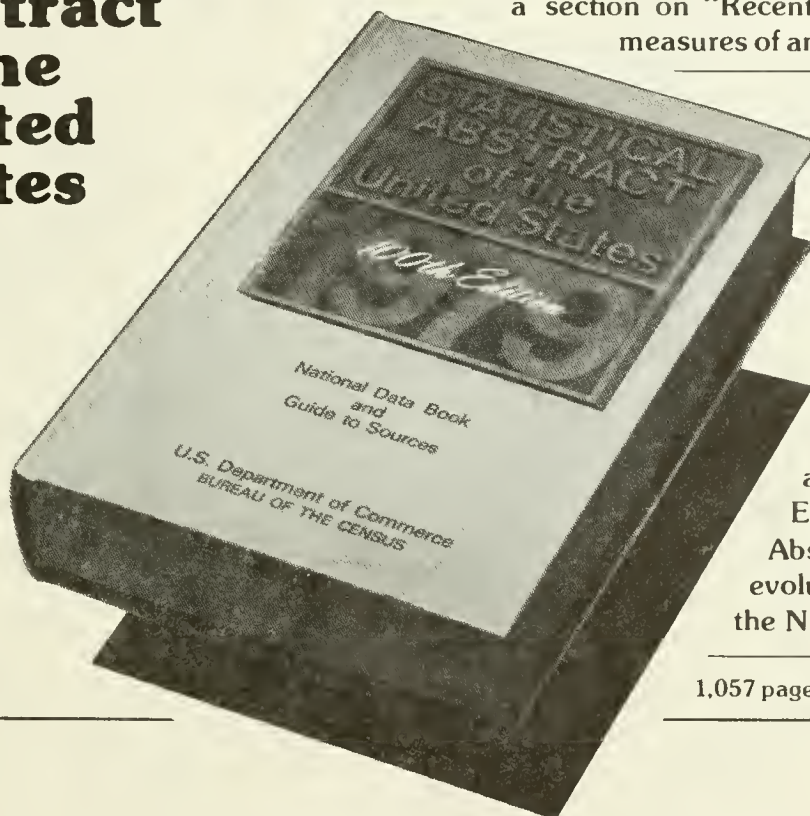
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